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# United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

New and Rare Seed Distribution,

WASHINGTON, D. C.

## DWARF MILO (Andropogon sorghum).

OBJECT OF THE DISTRIBUTION.—The distribution of new and rare seeds has for its object the dissemination of new and rare crops, improved strains of staple crops, and high-grade seed of crops new to sections where the data of the department indicate such crops to be of considerable promise. Each package contains a sufficient quantity for a preliminary trial, and where it is at all practicable the recipient is urged to use the seed for the production of stocks for future plantings. It is believed that if this practice is followed consistently, it will result in a material improvement in the crops of the country. Please make a full report on the inclosed blank regarding the results you obtain with the seed.

#### DESCRIPTION.

This is an early dwarf and leafy strain of milo, which under ordinary conditions should grow from 3½ to 4½ feet in height and mature in 90 to 100 days. Dwarf milo is characterized by its rather compact, obovate, or oblong heads, the individual grains of which are roundish and somewhat flattened in shape and reddish yellow in color. The heads are not so uniformly erect as those of kafir, a considerable percentage being goosenecked. It has marked ability to withstand drought and is adapted to the Panhandle of Texas, western Oklahoma, western Kansas, southeastern Colorado, and many parts of New Mexico, Arizona, and California. Grain yields ranging from 20 to 50 bushels per acre may be expected. The fodder yield is not so heavy as that of kafir on similar land and it is not relished as much by stock, owing to the dry, pithy stems.

## PLANTING.

Milo should be planted from two to four weeks later than Indian corn except in regions troubled with the sorghum midge, where very early plantings are recommended. The usual method of planting is in listed furrows, as this method places the roots deep in the soil and aids the plant to withstand drought. Milo is usually planted in cultivated rows 36 to 44 inches apart, or about the same as Indian corn.

When planting in this manner 4 to 6 pounds of clean seed will be sufficient for an acre. With well-prepared ground and seed of good germination the lower rate of seeding is advised. Thick stands produce finer stalks and smaller heads, but will be liable to greater injury from drought than the comparatively thin stands.

#### CULTIVATION.

Dwarf mile should be cultivated much the same as Indian corn. It is usually best to cultivate two or three times with the harrow while the plants are small, but as soon as sufficient growth is made the crop should be given a fairly deep and thorough cultivation. Two or three subsequent and shallower cultivations are desirable to conserve moisture. Care should be used to have these later cultivations shallow, in order to avoid breaking many feeding roots.

#### HARVESTING.

If harvested for both grain and fodder the crop should be cut in the late dough stage. Cutting with a corn binder and shocking in the field is the least expensive method. A corn binder is the most practical method of harvesting if the crop is to be utilized as silage. If grown solely for the grain yield, it should be allowed to stand until the stems at the base of the head are dry. If the heads are cut by hand from the standing stalks, the remainder of the crop can be utilized for pasture.

#### FEEDING.

Dwarf milo is most valuable as a grain crop and provides the feeder in the arid regions with a very satisfactory substitute for corn. When used as a grain feed it is well to grind milo or its full value as a grain will not be realized. When fed to cattle in the bundle, hogs should always be kept in the feed lot to pick up the undigested and scattered grains. It has been found in practical feeding tests that it takes about 10 pounds of milo to equal 9 pounds of corn. Dwarf milo makes good silage, but the tonnage is not so large as that of kafir or the sweet sorghums. Much of the dwarf milo is fed in the bundle to both horses and cattle and with good results, providing thus both grain and roughage. A little cottonseed meal or some other concentrate rich in protein and fat should be fed with it.

### SEED SELECTION.

With a few exceptions, home-grown seed is always best. It is therefore essential that each farmer select and keep his own seed from year to year. The best time to make selections is in the field as soon as the earlier heads mature. Dwarf, leafy plants without side branches and with little tendency to stool should be selected. The stalks should bear from 14 to 16 leaves and be as sweet and juicy as possible. A head that is entirely out of the boot and, whenever possible, an erect head should be chosen. A uniform lot of heads well shaped and well filled at both butt and tip should be selected. In this seed selection care should be taken to avoid hybrids. The exceedingly large heads are generally the result of hybridization or of some local variation in stand or soil conditions. Selections should be made 100 yards or more from any other variety of sorghum, as they all cross freely. By careful selection and the growing of your own seed, yields can be materially increased.

#### SUGGESTIONS.

This dwarf milo will be found equal to or better than standard milo for grain production. The ease with which it can be harvested makes it the more desirable of the two crops. The forage or silage yield, however, will not be as great as that of standard milo. It is suggested that seedings be made so as to place the plants 4, 8, 12, and 16 inches apart in the row, thus giving an opportunity for each grower to decide for himself the proper rate of planting in his locality. Different dates of seeding might also be tried.

JULY 22, 1915.